WHAT IS CLAIMED IS:

1. A uniaxial drive unit comprising:

a pulse drive motor having a fixed part and a moving part, which is driven by an applied pulse voltage;

a fixed table; and

a moving table which is supported so as to be slidable in the uniaxial direction with respect to said fixed table, wherein

one of said fixed part and moving part is fixed to said fixed table, and the other of said fixed part and moving part is fixed to said moving table,

a rotary pulse generating device having a knob, which is a device for generating an electric pulse for driving said pulse drive motor, is provided, said rotary pulse generating device generating a pulse of a frequency corresponding to the turning speed of said knob and generating pulses of the number corresponding to the turning angle of said knob, and

fine feed is provided to said moving table by the pulse generated by said rotary pulse generating device.

2. The uniaxial drive unit according to claim 1, wherein

said pulse drive motor is a linear motor comprising:

a fixed part which is a rod-shaped magnet in which the N poles and the S poles are arranged alternately; and

a moving part having a coil member, which is fitted on said fixed part and can move along said fixed part.

3. The uniaxial drive unit according to claim 1, wherein

a tiltable pulse generating device having a tiltable lever, which is a device for generating an electric pulse for driving said pulse drive motor, is provided, said tiltable pulse generating device generating a continuous pulse of a frequency corresponding to the tilt angle of said tiltable lever, and

said moving table is moved continuously by the continuous pulse generated by said tiltable pulse generating device.

4. The uniaxial drive unit according to claim 3, wherein

a scale for detecting the position of said moving table and a servo amplifier for feedback controlling said pulse drive motor by a signal sent from said scale are provided, and

when said moving table is stopped, the servo state of said servo amplifier is turned off, and when the operation of said tiltable pulse generating device or rotary pulse generating device is detected, the servo state of said servo amplifier is turned on.